

CLAIMS

I claim:

1. A wireless communicator (110) adapted for use with an active host (210),
5 the wireless communicator comprising:
 - a voice receiver (260) configured to receive an incoming voice radio signal (264) and to provide based thereon an incoming voice baseband signal (262);
 - a voice transmitter (270) configured to receive an outgoing voice baseband signal (272) and to transmit based thereon an outgoing voice radio signal (274);
 - 10 a data receiver (260) configured to receive an incoming data radio signal (264) and to provide based thereon an incoming data baseband signal (262);
 - a data transmitter (270) configured to receive an outgoing data baseband signal (272) and to transmit based thereon an outgoing data radio signal (274); and
 - a baseband modem (230) configured to receive the incoming voice baseband
15 signal and the incoming data baseband signal, to produce the outgoing voice baseband signal and the outgoing data baseband signal, to receive an outgoing host signal (214) from the active host, and to provide an incoming host signal (212) to the active host;
 - wherein the wireless communicator is adapted to be transferred across and to operate with at least two mobile host devices of different types, where at any one time
20 one of the mobile host devices is the active host.
2. The wireless communicator of claim 1, wherein:
 - the baseband modem is further configured to operate in a mode selected from a
mode that converts the incoming voice baseband signal to the incoming host signal, a
25 mode that converts the incoming voice baseband signal to the outgoing data baseband signal, a mode that converts the incoming data baseband signal to the incoming host signal, a mode that converts the incoming data baseband signal to the outgoing voice baseband signal, a mode that converts the outgoing host signal to the outgoing voice baseband signal, a mode that converts the outgoing host signal to outgoing data baseband
30 signal, and a mode that is a combination of at least two thereof; and
 - the wireless communicator further comprises a controller (250) configured to

control the mode of the baseband modem.

3. The wireless communicator of claim 1, further comprising:
a controller (250) configured to initiate a communication link between the
5 wireless communicator and an external device, the communication link being selected
from a voice communication link (190), a data communication link (192), and a low-
power communication link (194).

4. The wireless communicator of claim 3, wherein:
10 the controller is further configured to determine which communication links are
currently available, to select a one of the available links and to initiate the
communication link on the preferred link.

5. The wireless communicator of claim 3, wherein:
15 the controller is further configured to keep the communication link active while
the wireless communicator is transferred from a first mobile host device being active to a
different mobile host device being active.

6. The wireless communicator of claim 3, further comprising:
20 a nonvolatile memory (255);
wherein the controller is further configured to use data held in the nonvolatile
memory to initiate the communication link.

7. The wireless communicator of claim 6, wherein the data used by the
25 controller is selected from subscription data, user identification data, user preference
data, security data, and a combination of at least two thereof.

8. The wireless communicator of claim 1, wherein the incoming voice radio
signal and the outgoing voice radio signal are selected from mobile telephone signals,
30 advanced mobile phone system (AMPS) signals; global system for mobile
communication (GSM) signals, time division multiple access (TDMA) signals, code
division multiple access (CDMA) signals, and wideband code division multiple access

(WCDMA) signals.

9. The wireless communicator of claim 1, wherein the incoming data radio signal and the outgoing data radio signal are selected from wireless local area network (WLAN) signals, wireless Ethernet signals, Institute of Electrical and Electronics Engineers (IEEE) standard 802.11 signals, low-power wireless signals, and Bluetooth signals.

10. The wireless communicator of claim 1, wherein the active mobile device is of a type selected from a mobile telephone (120), a personal digital assistant (130), a music player (170), a radio, a mobile computer (145), a notebook computer, a pocket computer, a tablet computer, and a device that is a combination of at least two thereof.

11. The wireless communicator of claim 1, further comprising:
15 a second data receiver (260) configured to receive a second incoming data radio signal and to provide to the baseband modem based thereon a second incoming data baseband signal;

a second data transmitter (270) configured to receive a second outgoing data baseband signal from the baseband modem and to transmit based thereon a second
20 outgoing data radio signal; and

wherein the incoming data signal and the outgoing data signal are wireless local area network (WLAN) signals and the second incoming data signal and the second outgoing data signal are low-power wireless signals.

25 12. The wireless communicator of claim 1, wherein the baseband modem is further configured to provide to the voice transmitter data information that is formatted for transmission over a voice communication link (190), and to receive from the voice receiver data information that is formatted for transmission over the voice communication link.

30 13. The wireless communicator of claim 1, wherein the baseband modem is further configured to provide to the data transmitter voice information that is formatted

for transmission over a data communication link (192), and to receive from the data receiver voice information that is formatted for transmission over the data communication link.

5 14. A wireless communicator adapted for use with an active host, the wireless communicator comprising:

 means for receiving an incoming voice radio signal and for providing based thereon an incoming voice baseband signal;

 means for receiving an outgoing voice baseband signal and for transmitting based
10 thereon an outgoing voice radio signal;

 means for receiving an incoming data radio signal and for providing based thereon an incoming data baseband signal;

 means for receiving an outgoing data baseband signal and for transmitting based thereon an outgoing data radio signal; and

15 means for modulating the outgoing voice baseband signal and the outgoing data baseband signal, and for demodulating the incoming voice baseband signal and the incoming data baseband signal;

 wherein the wireless communicator is adapted to be transferred across and to operate with at least two mobile host devices of different types, where at any one time
20 one of the mobile host devices is the active host.

 15. The wireless communicator of claim 14, wherein the means for modulating and demodulating is further means for converting the incoming voice baseband signal to an incoming host signal provided to the active host, for converting the
25 incoming voice baseband signal to the outgoing data baseband signal, for converting the incoming data baseband signal to the incoming host signal, for converting the incoming data baseband signal to the outgoing voice baseband signal, for converting an outgoing host signal received from the active host to the outgoing voice baseband signal, and for converting the outgoing host signal to outgoing data baseband signal.

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 16. The wireless communicator of claim 14, further comprising:

 means for controlling a communication link between the wireless communicator

and an external device, the communication link being selected from a voice communication link, a data communication link, and a low-power communication link.

5 17. The wireless communicator of claim 14, wherein the means for modulating and demodulating is further means for converting data information into the outgoing voice baseband signal and for covering the incoming voice baseband signal into data information, whereby data is sent over a voice communication link.

10 18. The wireless communicator of claim 14, wherein the means for modulating and demodulating is further means for converting voice information into the outgoing data baseband signal and for covering the incoming data baseband signal into voice information, whereby voice is sent over a data communication link.